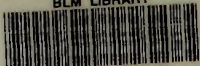


BLM LIBRARY



88057703



U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Eugene District Office
1255 Pearl Street
Eugene, Oregon 97401

Eugene Timber Management Plan Record of Decision

SD
538.2
.07
E95
1983
Suppl.

ID: 88057703

BLM Library
D-553A, Building 50
Denver Federal Center
P. O. Box 25047
Denver, CO 80225-0047

SD
538.2
.07
E95
1983
Suppl.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

EUGENE DISTRICT OFFICE
P.O. Box 10226 (1255 Pearl Street)
Eugene, Oregon 97401

September, 1983

Dear Citizen:

Enclosed is the record of decision for the 10-year timber management plan covering BLM-administered commercial forest lands in the Eugene District. The plan decision reflects several years of work by our staff, the contributions of many citizens and groups and an ongoing review by the Eugene District Advisory Council. The plan is a balanced response to conflicting demands and is consistent with governing law and policies. It reaffirms BLM's commitment to support the local economy while providing a wide range of public benefits from wildlife, fisheries, recreation and unique natural values.

Thank you for your interest in and help with development of the plan.

Sincerely yours,

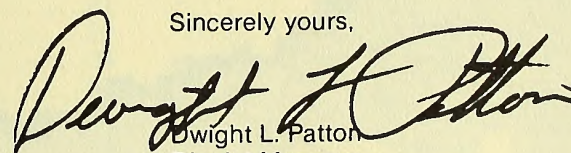
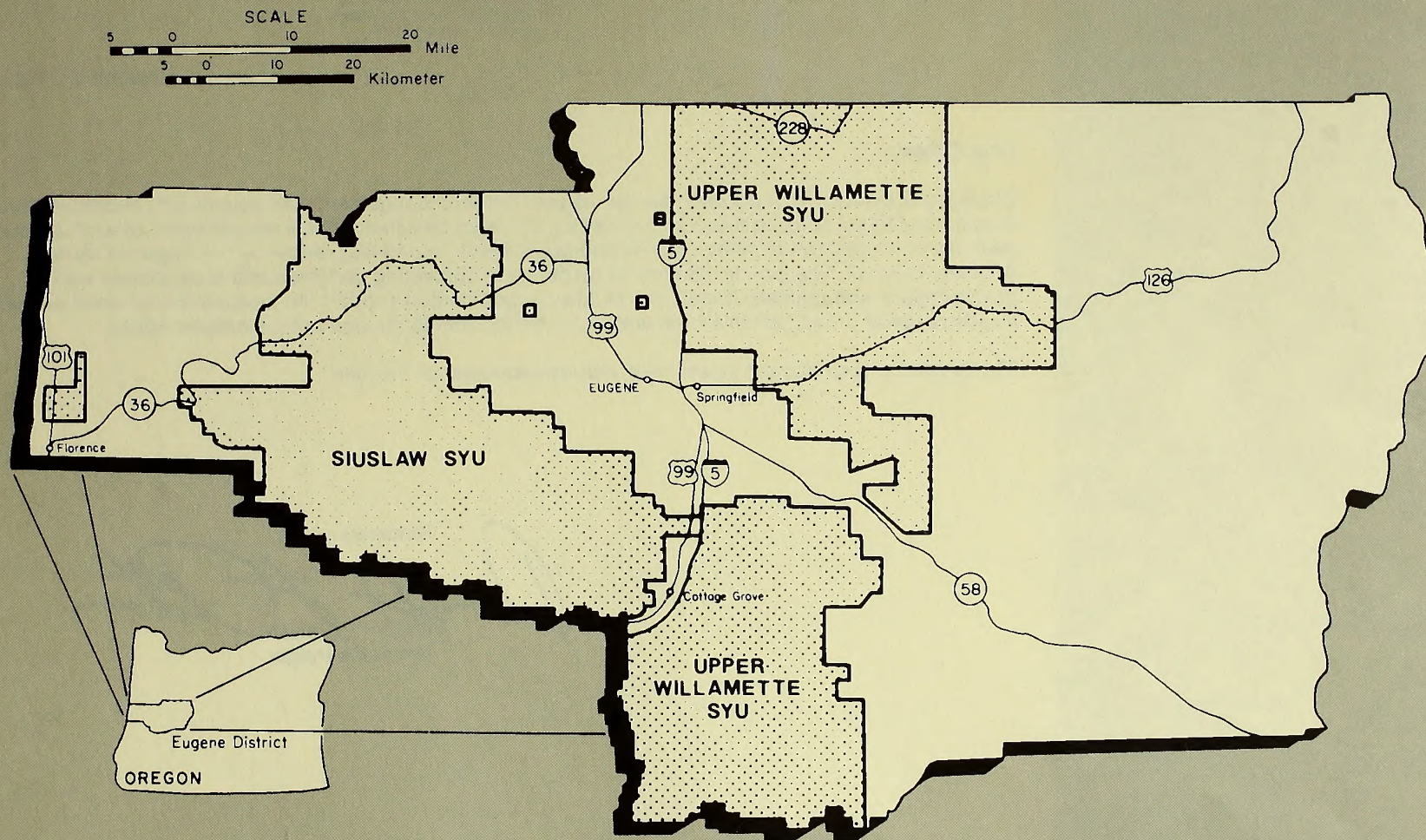

Dwight L. Patton
District Manager

Figure 1. Vicinity Map



Contents

	Page
Summary of the Decision	7
Introduction	7
Purpose and Scope	7
Background	7
Decision	9
Land Use Allocation	10
Timber Management	10
Wildlife	11
Soil and Water	11
Visual Resources	11
Recreation	11
Natural Areas	11
Decision Rationale	12
Economics	12
Environment	13
Public Opinion	13
Policy	14
Summary Conclusion	14
Costs of Implementation	14
Monitoring and Research	14
Appendices	15
A: Description and Comparison of EIS Alternatives	15
B: O&C Forest Resources Policy - 1983	19
C: Areas of Critical Environmental Concern	20
D: Environmental Preferability	21
E: Summary of Public Input	22
F: Consistency with Federal, State and Local Planning	24
G: District Monitoring Plan	27
List of Tables	5
Table 1 Program Comparison	5
Table 2 Harvest and Reforestation Practices	10
Table 3 Local Economic Impacts on Lane and Linn Counties	13
Table 4 Funding Level	14
Table 5 Comparison of EIS Alternatives	16
Table 6 Areas of Critical Environmental Concern	20
Table 7 Compliance with NEPA Goals	21
Table 8 Summary of Responses	22
List of Figures	2
Figure 1 Planning Boundaries	2
Figure 2 Decision Land Allocations	10

Decision

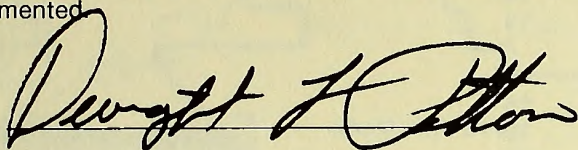
My recommendation is to adopt the proposed action, Alternative 5, of the final Eugene Timber Management Environmental Impact Statement of May 1983, with the following modifications,

- One snag, or green tree of low commercial value, will be left per acre on lands within the East-West Corridor, totaling 20 percent of the District's commercial forest land. Additional snags will be retained following harvest operations on the remainder of the commercial forest land base, where feasible. Subsequent decisions to retain more or fewer snags will be made on the basis of site specific habitat management plans to be developed in the Corridor early in the decade.

Furthermore, I recommend that:

- The mitigation measures and design features described in the Eugene final EIS be adopted or implemented.
- The use of these mitigation measures and design features, as well as the technical assumptions and land use plans on which the allowable cut is based, be monitored so that consistency is maintained during operations under this plan.
- The applicable land use decisions contained in the management framework plan be adopted and implemented.

Signed:



District Manager, Eugene

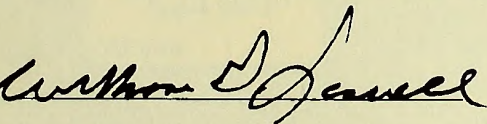
Date:

SEP 30 1983

I approve of the timber management plan and underlying management framework plan decisions as recommended and hereby declare that effective October 1, 1983, the annual productive capacity (allowable harvest level) of the Upper Willamette and Siuslaw Master Units is 35,040,000 cubic feet.

Formal protests to this plan submitted in accordance with Bureau planning regulations (43 CFR 1610.5-2) will be considered timely if filed by October 31, 1983.

Signed:



State Director, Oregon

Date:

SEP 30 1983

Summary of the Decision

This is a summary of the 10-year timber management plan for the Bureau of Land Management's Eugene Planning Area.

The decision is to adopt a slightly modified version of the proposed action (Alternative 5) described in the final Eugene Timber Management Environmental Impact Statement.

The central feature of the plan is the annual allowable harvest of 35.04 million cubic feet (approximately 223 million board feet, MM bd. ft., Scribner 16-foot equivalent) of timber from 276,691 acres of commercial forest land (CFL) in the planning area.

The CFL base includes land which is capable of annually producing at least 20 cubic feet of timber per acre. This plan allocates about 265,000 acres, or 86 percent of the CFL base, to intensive timber management. Practices to be followed on this land include timber harvest, site preparation for reforestation, tree planting, animal damage control, release of tree plantations from competing vegetation, precommercial thinning and fertilization. This land is expected to produce 221.4 MM bd. ft. of timber annually.

An additional 1.6 MM bd. ft. will be harvested annually on about 11,700 acres of CFL that will be managed on an extended rotation harvest. Harvest in the extended rotation areas may include clearcuts or limited salvage operations as appropriate. Most of this acreage—11,300 acres—will be managed on a 350-year extended rotation. This acreage will provide habitat for plant and animal species dependent on, or strongly oriented to, older forest. This management will also ensure retention of older forest stands while research explores the contribution of these stands to long-term forest

productivity. About 400 acres will be managed on an extended rotation of 120 years to maintain visual resources in the McKenzie River corridor.

Commercial forest land allocated to uses other than planned regular timber management total 31,100 acres and includes 9,600 acres (3 percent of CFL) in riparian areas, unique natural areas and recreation sites and 21,500 acres (10 percent of CFL) designated as severely fragile and reforestation problem sites that are incapable of supporting sustained yield timber production using current technology.

Existing wildlife habitat will remain essentially undisturbed on about 31,100 acres of CFL not subject to planned regular timber harvest. An additional 11,300 acres (extended rotation areas) will be managed primarily for wildlife habitat and a number of design elements and mitigating measures will provide habitat structure on lands allocated to intensive timber management. Fish populations are expected to increase as a result of streamside protection.

This management will maintain viable populations for most native wildlife species on BLM-administered land. Habitat of northern spotted owls will be reduced, but adequate habitat for 13 pairs will be protected, based on the original habitat recommendations of the Oregon Endangered Species Task Force (300 areas per pair).

The plan calls for an eventual timber harvest rotation of approximately 75 years. However, harvesting in the 40-year age class will begin in the 4th decade of the plan and continue through the 9th decade. Harvesting after the 9th decade will involve progressively older age classes as the stand approaches the character of a regulated forest.

Full implementation of the decision will cost an average of \$9.3 million annually. Of this total, approximately \$8 million will require direct appropriation, while the remaining \$1.3 million will be derived from road maintenance fees and contributions for slash disposal.

The following table compares salient features of this plan and the plan developed for the previous decade (1972 plan).

Table 1 Program Comparison

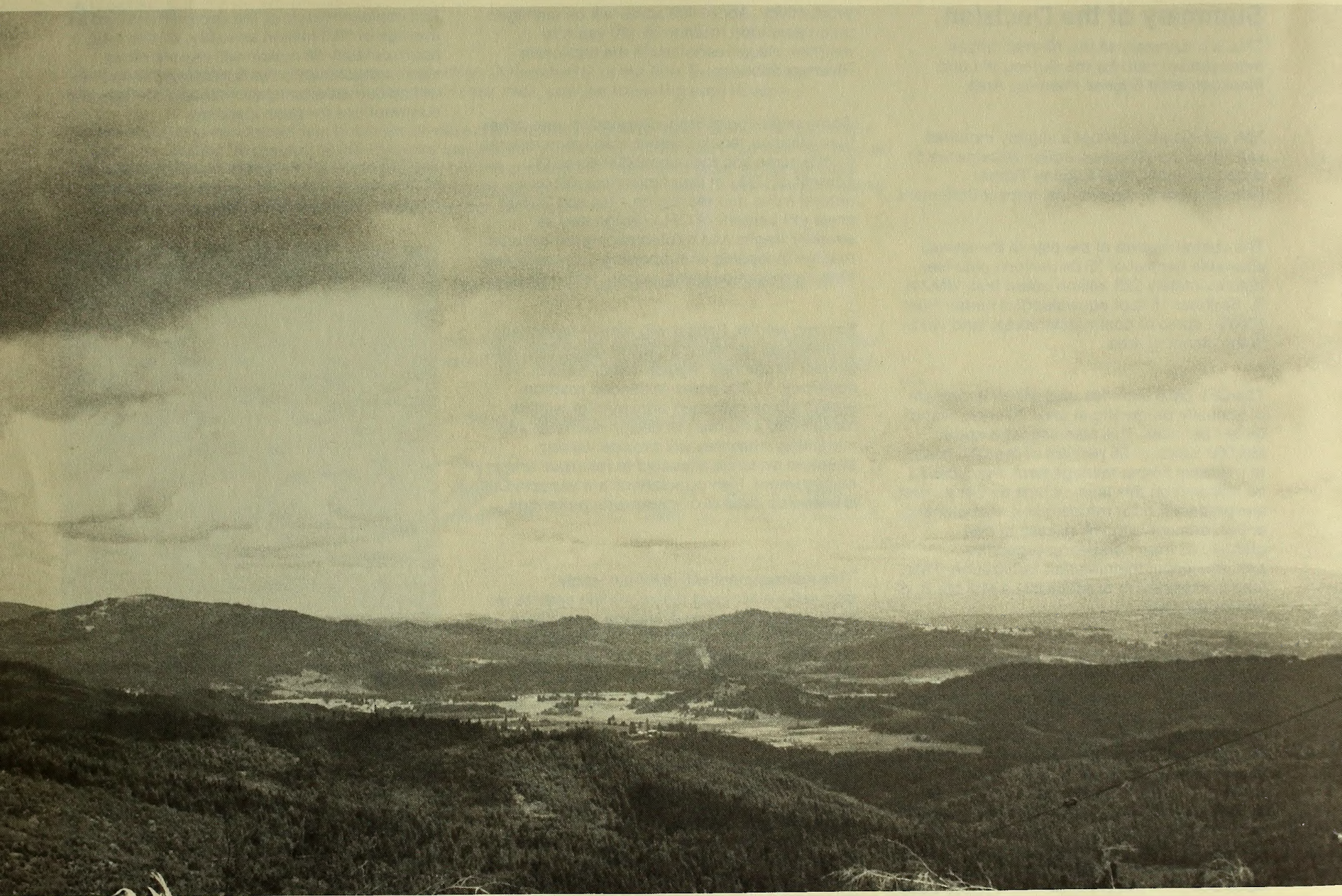
	1972 Plan	Decision
Acres in Intensive Management	294,695	265,038
Acres in Constrained Management	0	11,653
Acres No Planned Timber Harvest		
Riparian Zones & Watershed Protection	295	8,675
TPCC (Fragile sites, etc.)	0	21,555
Cultural	0	40
Research Natural Areas	0	780
Bald Eagle	0	103
Annual Allowable Harvest Level (MM bd. ft.)	219 ¹	223
Total Annual Work Years	4,940	5,028
Total Annual Personal Income (x \$1000) ²	88,000	89,600
Annual Timber Sale Receipts (x \$1000) ³	57,378	58,426
Annual Timber Sale Receipts (x \$1000) ⁴	20,301	20,672

¹ A multiple use factor, applied to the intensive timber base, was used during the 1972 allowable cut calculation process, consisting of an approximate 3 percent reduction in yield on 54,720 acres for visual and wildlife considerations.

² Average annual amount, 1979 dollars.

³ Based on FY 1981 sales value of \$262 per MBF.

⁴ Based on FY 1982 sales value of \$92.7 per MBF.



Introduction

Purpose and Scope

The purpose of this document is to describe the 10-year timber management plan for lands administered by the Eugene District Bureau of Land Management (BLM or Bureau). These lands are officially titled the Upper Willamette and Siuslaw Sustained Yield Units (SYU). Hereafter, they will be referred to as the District or as the SYUs.

The plan will be described briefly, along with an assessment of the funding needed for implementation and plans for monitoring and research. More specifically, this document has the following major aims:

- To outline the relationship of O&C lands policy to the decision.

- To show how the decision ties to the land use planning and environmental analysis processes.

- To identify the significant environmental, economic and social impacts of the decision.

- To identify funding needs for full implementation.

The information provided is summary in nature and limited to those factors and data having a significant bearing on the decision. The management framework plan (MFP), which forms the basis for this timber management plan, contains descriptions of extensive and wide ranging operational management measures related to soil stabilization, water quality maintenance and fish and wildlife habitat protection and enhancement. Because of the detailed nature of these measures and

the fact that their application is not dependent on the alternative selected, they will not be discussed in detail in this document. A more detailed presentation of the plan may be obtained by reviewing the Eugene MFP and the draft and final Timber Management Environmental Impact Statements (EISs), Oregon State Office, BLM, November 1982 and May 1983, respectively.

Background

The Eugene planning area encompasses 317,000 acres¹ of BLM-administered land in the Upper Willamette and Siuslaw Units of central western Oregon. These lands are widely scattered and intermingled with private and other public lands. Of the total BLM-

¹ Most acreage and all tonnage figures in this document are estimated and rounded to the nearest 100. Acreages which are the result of averaging are not rounded.

administered acreage, 286,000 acres are classified as commercial forest land (i.e., timber grows or could be grown at a rate of 20 cubic feet or more per acre per year). These lands are also noted for significant wildlife, fisheries, recreation, visual and unique natural values.

In 1972, a land use plan was prepared for the Eugene District. Since that time, increased environmental awareness and basic advancements in resource management have brought the following changes in the planning process:

Timber Inventory. Two new inventory procedures were established. The Timber Production Capability Classification (TPCC) system was designed to delineate lands suitable and unsuitable for sustained yield production of timber. Unsuitable lands include severe fragile sites and severe problem reforestation sites. They are commonly referred to as TPCC withdrawn and not included in the allowable cut computation. This inventory was completed in 1976. The Operations Inventory was developed to identify in-place silvicultural opportunities and problems, such as precommercial thinning and control of competing vegetation. This inventory was completed in the Eugene District in 1970 and updated in 1977. These two inventory efforts refined the data base for the extensive forest inventory which was designed to provide overall growth and yield information for the allowable cut computation. The extensive inventory was completed in 1978.

Multiple-Use Planning. During the mid-1970s, the Eugene District launched an intensive effort in multiple-use planning. Specialists in forestry, lands, minerals, recreation, landscape architecture, archeology, botany, hydrology, soils, wildlife and fisheries were involved in systematic inventory, analysis and plan

proposals. In 1982, the District issued a proposed land use plan that served as the framework for the current timber management plan.

Public Participation. In the mid-1970s, the District began a program to communicate the planning process and proposals. A variety of public participation activities were scheduled, including:

- tours of BLM-administered lands;
- inventory and analysis workshops;
- plan alternatives workshops;
- advisory council plan reviews and recommendations;
- informal contacts with individuals, interest groups and agencies;
- formal meetings with groups and agencies;
- news releases;
- news letters;
- summaries of plan alternatives and the preferred alternative;
- EIS scoping meeting;
- draft EIS public meetings.

Environmental Assessment. In settling a suit brought by the Natural Resources Defense Council (NRDC v. Kleppe, Civil No. 75-1861), BLM agreed to an accelerated schedule of EIS preparation on the series of timber management plans being developed in the 1980s. A draft EIS was prepared and released on November 24, 1982, and a final EIS on May 27, 1983. The alternatives described and analyzed in the EIS are summarized in Appendix A.

Policy Development. Throughout the planning and EIS process, existing policy and legal guidance were questioned by a number of people responding to public review documents. One specific concern was the relative importance of timber management in the context of the Oregon and California Railroad Land Grant Act (O&C Act) and other pertinent legislation. Some respondents alleged that several of the alternatives violated the O&C Act by devoting too much attention to uses other than timber production. Other respondents stated that none of the alternatives provided adequate protection for some non-timber resources. A policy statement for management of western Oregon BLM-administered lands was drafted and submitted to the Interior Department Solicitor's Office for legal review. The Solicitor examined the proposed policy in light of pertinent legislation and issued a legal analysis essentially indicating that the policy was within the law provided minor revisions were made.

Influencing the subsequent refinement of policy were public concerns and an October 1982 amendment to the Endangered Species Act requiring consideration of State listed species. The O&C Forest Resources Policy (see Appendix B) of March 1983 is the result of this refinement.

The preferred alternative in the final EIS and this decision were selected to comply with this policy.

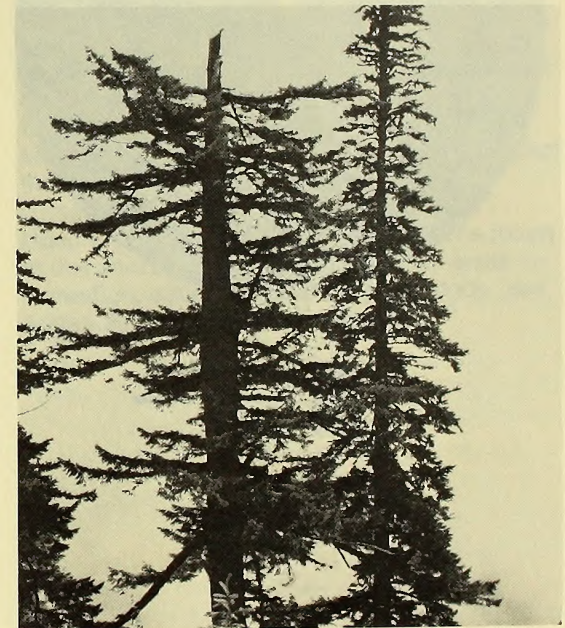
Decision

This section of the document describes the decision and the rationale used to reach the decision.

The decision is essentially the same as the preferred alternative (Alternative 5) described in the final EIS, with the following modifications:

The decision alters certain aspects of snag management described for the preferred alternative in the EIS. The preferred alternative proposed leaving three snags, or green trees that would be made into snags, per acre on lands within the East-West Corridor, totaling about 20 percent of the District. Snags on the rest of the base would have been left where possible. A two-million-board-foot reduction in the allowable cut was proposed to accommodate the loss of commercial volume

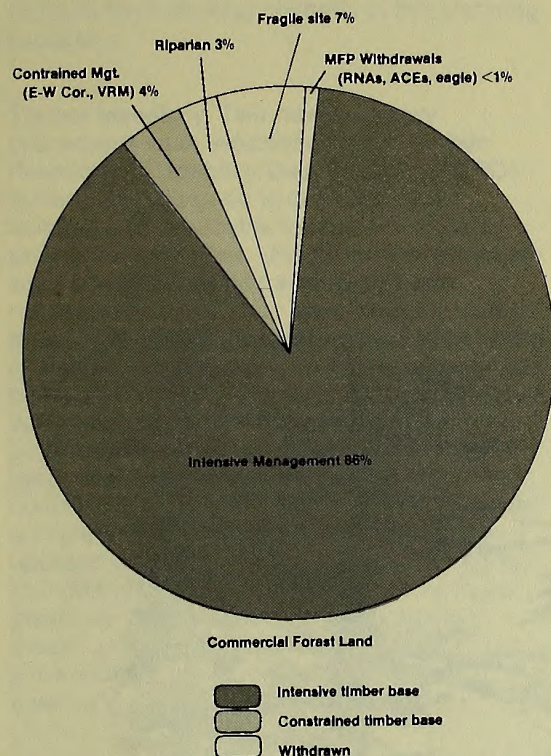
in these trees. The decision, instead, directs that, initially, one snag or green tree per acre will be left in the corridor. As in the preferred alternative, snags will be left on the remainder of the commercial forest land base, wherever possible. The two-million-board-foot reduction is retained in the decision, but as the upper limit of allowable harvest reduction allowed from the impacts of all Habitat Management Plans (HMP) that will be prepared and implemented early in the decade. These HMPs may call for an increase or decrease in the number of snags retained. In addition, these plans may further impact timber yield through expansion of certain riparian zones, protection of areas of escape cover, retention of dense unthinned stands for accipiters and screens for unique areas, or through any other provision necessary for adequate HMPs. These plans will continually be monitored for effectiveness and timber yield impact throughout the decade.



Land Use Allocation

The percentages of commercial forest land (CFL) allocated to various uses under the decision are as follows:

Figure 2.
Decision Land Allocations



The decision includes commercial forest land allocations of 265,000 acres for intensive timber production; 11,700 acres for constrained timber production; 21,500 acres of severe fragile sites and severe problem reforestation sites (hereafter referred to as TPCC withdrawn); and 9,600 acres for protection and management of other values (see pie chart for specific values).

Timber Management

The total annual allowable harvest level will be 223 MMBF (intensive timber base, 221.4 MMBF; constrained timber base, 1.6 MMBF).

Conifer timber available for final harvest will have an average minimum size of 12 inches diameter at breast height (dbh), which is normally reached at age 40 in the Eugene District. Harvesting at this size will occur from about the 4th through the 9th decades. Thereafter, harvest will shift to older timber, approaching an eventual harvest age of approximately 75 years.

On intensively managed lands, harvest and reforestation practices will be applied during the decade as follows:

Table 2 Harvest and Reforestation Practices

Practice	Approximate Acres/Year
Harvest	
Clearcut	3,990
Commercial Thinning	1,300
Mortality Salvage	100
Site Preparation	
Broadcast Burning	2,550
Herbicide Application	780
Manual	300
Mechanical	330
Planting	
Initial	3,850
Replant or Interplant	960
Plantation Protection	1,280
Plantation Release	3,850
Precommercial Thinning	1,400
Fertilization	6,760

Credit for applying these practices is incorporated in the annual allowable harvest level.

The 21,500 acres of TPCC withdrawn lands are judged incapable of supporting sustained yield timber management and are therefore not included in the timber management base. This does not mean that they will never be harvested, but no harvest is planned. Should technology improve to permit harvest and regeneration without significant productivity loss, these lands, or portions thereof, will be returned to the timber management base. The District MFP designates these lands to be managed primarily for wildlife habitat.

The decision allocates about 11,300 acres of CFL to be managed on an extended rotation of 350 years. These extended rotation areas are distributed within a corridor designed to contribute to habitat diversity for the northern spotted owl and other wildlife. The corridor would provide an east-west linkage between national forests and in the Coast and Cascade Ranges, as well as the areas of wildlife habitat allocations provided by decisions for the Coos Bay and Roseburg BLM Districts. Included among the extended rotation sites within the East-West Corridor are representative functioning old-growth systems distributed by seed zone and elevation in order to safeguard long-term timber production. Current research is expected to provide additional knowledge which will aid during the next planning cycle in determining the importance of these older forest stands.

The timber management mitigation measures and design features described in the Eugene EIS for Alternative 5, with the modifications of snag management as noted above, represent the most reasonable and practicable means to minimize or avoid environmental harm and will be implemented.

Wildlife

Wildlife habitat diversity will be provided through the mix of age classes achieved through normal timber management and through allocations for the extended rotation areas of the East-West Corridor and for areas of no planned timber harvest. Impacts of intensive timber management will be mitigated through efforts to restrict access in certain locations, retain habitat structures such as snags and down logs, and to provide spatial distribution of clearcuts. Mitigating measures will be especially concentrated with the 20 percent of the District's commercial forest base that is located within the East-West Corridor.

Within this area, at least one snag or low commercial value green tree will be left per acre and at least one 25-acre stand per BLM-administered section will be left unthinned. These measures may be modified as site-specific Habitat Management Plans are implemented early in the decade.

This management will maintain viable populations for most native wildlife species on BLM-administered land. In the long term, habitat diversity will be reduced, favoring adaptable species and those oriented to younger seral stages. Habitat of northern spotted owls will be reduced, but adequate habitat for 13 pairs will be maintained through the decade, based upon the original habitat recommendations of the Oregon Endangered Species Task Force. A known bald eagle nesting site will be protected by withdrawing about 100 acres of commercial forest land. Fish populations are expected to increase as a result of streamside habitat protection.

Soil and Water

Soil and water resources will be conserved by meeting or exceeding Oregon Forest Practice rules during intensive timber management and by land allocations for riparian zones and watershed protection (8,700 acres of CFL withdrawn) and TPCC withdrawals (21,500 acres of CFL withdrawn). Riparian zones will be protected on third order and larger streams.¹ Road and yarding corridors will be allowed in these zones.

¹ First order streams are the smallest streams shown on BLM planimetric maps. A second order stream is formed where two first order streams flow together. Two second order streams create a third order stream, etc.

Visual Resources

Commercial forest land totalling about 400 acres will be managed to meet VRM Class III standards, i.e., changes caused by management activities may be evident, but should remain subordinate to, the existing characteristic landscape. This land is located along the McKenzie River corridor. A timber harvest rotation of approximately 120 years will be used in these areas. Special areas of scenic resources will be protected through designation of Areas of Critical Environmental Concern.

Recreation

The decision provides for a variety of dispersed recreation uses and activities that are expected to meet recreational demands. This includes new site development, hunting, fishing, hiking, horseback riding and off-road vehicle areas.

Natural Areas

Seven areas, totalling 1,200 acres, will be managed to protect unique natural values. The areas will be designated Areas of Critical Environmental Concern (ACEC). ACEC Management Plans specify measures to protect these resources, such as withdrawal of commercial forest land and restriction or closure of motorized vehicle access. The intent of this allocation is to provide special areas for recreation, education and scientific study (see Appendix C for a list of these areas).

Decision Rationale

Rationale for the decision is based on four major factors: economics, environment, public opinion, and policy. An analysis of each factor and a summary conclusion are presented below.

Economics

Among economic factors influencing the decision are the significance of BLM's timber supply to the local wood processing sector and the need to increase timber production from BLM-administered lands as described in "1980 Oregon Timber Supply Assessment".

The decision increases the annual allowable sales volume 4 MMBF over the 1972 allowable cut declaration.



In the first decade, the estimated annual economic impacts of continuing the 1972 plan, the No Action Alternative, or implementing the decision are as follows:

Table 3 Local Economic Impacts on Lane and Linn Counties (annual)

	Decision	No Action (1972 Plan)
Timber Sale Volume (MM bd. ft.)	223 (+ 4)	219
Employment Supported (full-time equivalent)		
Logging and Processing	1,660 (+30)	1,630
Forest Management	32 (+ 0)	32
Wildlife and Recreation	84 (+ 0)	84
Total Employment Impacts: Timber, Wildlife, Forest Management Employment & Retail Service and Local Government Employment	5,028 (+88)	4,940
O&C Payment to all O&C Counties (millions of dollars)		
FY 81 Sales Level (\$262/MBF)	28.35	27.84
FY 82 Sales Level (\$ 97/MBF)	10.03	9.85

Environment

Legal guidelines from the Council on Environmental Quality require BLM to identify the environmentally preferable alternative in this planning process. The environmental preferability among alternatives was judged by how well they met the goals established in Title I, Section 101 of the National Environmental Policy Act (NEPA) of 1969, as follows:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
2. Assure for all Americans safe, healthful, productive and esthetically and culturally pleasing surroundings.
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
4. Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment which supports diversity and variety of individual choice.
5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

To determine environmental preferability, the decision and EIS alternatives were rated by the Eugene District Planning Team using goals in the National Environmental Policy Act (see Appendix D). The decision ranked second in environmental preferability, tied with Alternative 4. The environmentally preferable alternative is Alternative 3.

Public Opinion

Many people perceive timber production as being at odds with other resource values. Significantly, however, almost everyone agrees that a reasonable balance should be maintained. The decision attempts to achieve that balance.

For many, the amount of timber that can be harvested from BLM-administered lands is a significant issue. This economic concern has been emphasized by the Oregon State Department of Forestry, the Association of O&C Counties, timber industry representatives and others.

Other interest groups and individuals expressed concern for resource values or uses other than timber production. They have tended to give greater support to habitat diversity, riparian and visual resource protection, recreation and maintenance of water quality. These views are also expressed by some public agencies.

The decision recognizes a significant concern for maintaining or increasing the annual allowable harvest level. It also addresses the protection of other resources to the extent provided by law and BLM policy.

Appendix E provides a summary of input received during the planning/EIS process.

Policy

The major policy guidelines for formulating the decision are contained in the O&C Forest Resources Policy of March 1983 (see Appendix B) and the planning coordination/consistency directives outlined in the Federal Land Policy and Management Act (FLPMA). A discussion of the latter is presented in Appendix F. The decision is consistent with both guidelines.

Summary Conclusion

Economic considerations played a major role in reaching a decision. Oregon's economy is increasingly dependent on public timber supplies, and BLM is committed to supporting the economy. The primary method of support will be to continue emphasizing intensive timber management and to maintain the highest feasible allowable cut consistent with needs of other resources. The demand for wood products is and will continue to be high, so it is important to maintain a continued high output of BLM timber.

Smaller, but still important, economic benefits are derived from non-timber resource uses. These benefits will increase through protection and management of anadromous fisheries and unique recreation features.

The environmentally preferable alternative, Alternative 3, was not selected as the decision because it would possibly reduce the allowable cut level in the second decade and beyond, if the land under deferred harvest were eventually withdrawn for ecological purposes.

Although the decision is not the environmentally preferable alternative, management activities will be conducted in an environmentally sound manner. Oregon Forest Practice rules will be met or exceeded, and restrictions on disturbance of fragile sites and riparian zones will minimize impacts on soil productivity and water quality.

Lands are allocated for the specific purpose of protecting unique natural values and endangered species. Mitigation measures will be used to avoid or correct negative impacts on fisheries, wildlife, cultural resources and other non-timber values.

Costs of Implementation

The following table shows the approximate average annual cost of implementing the decision for the first decade. Figures represent the average annual cost by program area. The annual cost to implement the decision is approximately \$9,287,000.

Table 4 Funding Level (\$1,000)

Major Program Area	Full Implementation
Transportation Systems ¹	1,600
Timber Management ² (including land survey)	6,197
Fire Management ²	951
Fish & Wildlife ³	373
Soil, Air, Water	166
Total ⁴	9,287

¹ Includes access acquisition and maintenance; does not include funding for major construction projects or aggregate production.

² Program areas directly related to reforestation and growth including contractual allowances.

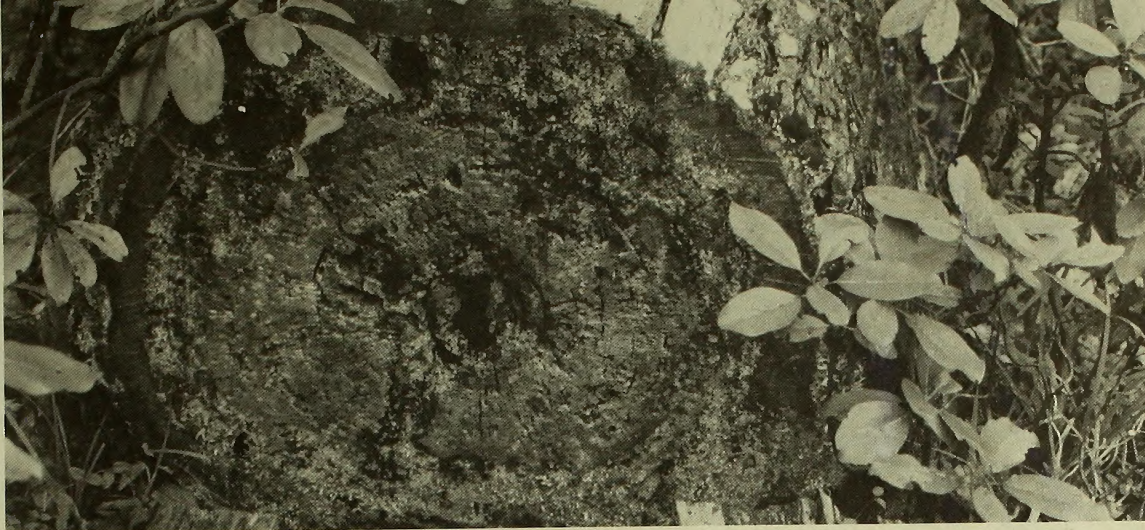
³ Includes funding for the development and implementation of habitat management plans.

⁴ Includes monitoring, but not research, which is funded on a statewide basis.

Monitoring and Research

Appendix G summarizes the major monitoring activities anticipated under the decision. The monitoring plan is designed to help ensure compliance with the goals and mitigation measures upon which this decision is based. Information gained from this monitoring will also be used to develop an improved basis from which to build future plans. Much of the monitoring will be accomplished through normal operating procedures such as contract administration and staff field review. This type of monitoring would go on regardless of the alternative chosen. In other instances, special systems have been developed to measure the biological and physical impacts of plan implementation. For example, the "Growth Response from Fertilization and Thinning" is designed to measure actual response in relation to the projected response used in the allowable harvest computation.

BLM cooperates with the Pacific Northwest Forest and Range Experiment Station and others in a research and development project involving the Douglas-fir old-growth ecosystem. This and other studies have been developed to evaluate the relationship of certain species of wildlife to old growth and to assess the role of older forest in maintaining long-term timber production.



Appendix A: Description and Comparison of EIS Alternatives

Ten alternatives were analyzed in the final environmental impact statement:

1. Maximum Timber Production with Even Flow Departure. All commercial forest lands would be allocated for intensive timber production except those managed to protect bald eagles or existing developed recreation sites, and those withdrawn (Fragile) because they would be incapable of undergoing harvest without significant site degradation. Timber harvest during the first two decades would be 244 MM bd. ft., an increase of 8 MM bd. ft. above the even flow level, but would be as low as 236 MM bd. ft. in subsequent decades.

2. Maximum Timber Production. This alternative would be the same as Alternative 1 in the size of the commercial timber base and in the type of management practices, but would not depart from even flow.

3. Deferred Harvest. This alternative would defer from harvest during the decade about 19,000 acres of older forest while research on old-growth ecology continues. Approximately 9,600 acres would be withdrawn to protect riparian zones, on third order and above streams, bald eagles, Research Natural Areas and sensitive botanical species.

4. Seral Stage Distribution. This alternative would provide for a high level of timber production while preserving 4,000 acres of representative and functioning blocks of older seral stages. About 9,600 acres would be withdrawn to protect watershed, wildlife and fisheries values.

5. East-West Corridor (BLM's Preferred Alternative). This alternative would create an east-west linkage of older forest habitat between National Forest in the Coast and Cascade Ranges and systems of wildlife habitat corridors in the Roseburg and Coos Bay BLM Districts. About 11,300 acres would be managed on a 350-year rotation within the corridor, 400 acres would be managed on an extended rotation of 120 years to protect visual resources and 9,600 acres would be withdrawn to protect riparian zones and related natural values.

6. No Action. This alternative, required for EIS analysis, would continue the land allocations, management practices and harvest level of the 1972 allowable cut determination.

7. Original Proposed Action. Under this alternative, 24,000 acres would be managed in a 350-year rotation to provide habitat diversity. Withdrawals for riparian zones, bald eagles, Research Natural Areas and sensitive botanical species are similar to those for Alternatives 3, 4 and 5.

8. No Use of Herbicides, or Credit for Fertilization and Genetics. This alternative is similar to the preferred alternative (Alternative 5) in land use allocation and timber treatments, except that herbicides would not be used. It would provide for continued use of fertilizer and planting of genetically improved trees, but the allowable cut computation would not take credit for anticipated growth increases.

9. Ecosystem. This alternative strongly emphasizes wildlife habitat diversity, primitive recreation opportunities, protection of visual resources and other natural values. Approximately 85,000 acres would be managed on a 350-year rotation and 36,000 acres would be withdrawn to protect riparian zones, including those adjacent to stream orders 1 and 2.

10. Maximum Ecosystem, with Withdrawal of Old Growth. Almost 102,000 acres would be managed on a 350-year rotation to provide maximum wildlife habitat diversity. A withdrawal of 70,000 acres would include riparian zones along all stream orders and all existing old growth blocks.

Table 5 Alternatives Comparison

	Units of Measure	Existing Situation	Alt. 1 Max/EFD	Alt. 2 Max. Tbr.	Alt. 3 Def. Har.	Alt. 4 S.S.D.	Alt. 5 E-W Cor.	Alt. 6 No Action	Alt. 7 O.P.A.	Alt. 8 No Herb.	Alt. 9 Eco.	Alt. 10 Full Eco.
Intensive Timber Production Base	Acres		286,039	286,039	276,331	271,831	265,038	294,695	253,085	251,786	135,026	58,511
Constrained Timber Production Base	Acres		0	0	360	360	11,653	0	23,606	11,653	114,553	156,614
Annual Timber Sale Program	million bd. ft. million cu. ft.		249 39.09	241 37.77	234 36.73	230 36.12	223 35.04	219 34.39	213 33.44	190 29.84	133 20.80	71 11.02
Socioeconomic ¹												
Impacts Compared to Existing Condition												
Total earnings	\$ millions	75.3	+24.5	+ 21.3	+18.7	+17.0	+14.3	+12.7	+10.3	+1.2	-21.7	-46.1
Total employment	jobs	4,242	+1,345	+1,169	+1,044	+952	+802	+714	+582	+77	-1,167	-2,230
Total timber sale receipts ²	\$ millions	45.30	-22.22	-22.96	-23.61	-23.98	-24.63	-25.00	-25.55	-27.69	-32.97	-38.72
Total timber sale receipts ³	\$ millions	45.30	+19.94	+17.84	+16.01	+14.96	+13.13	+12.08	+10.51	+4.48	-10.45	-26.70
Impacts Compared to No Action Condition												
Total Earnings	\$ millions	88.0	+11.7	+8.6	+6.0	+4.4	+1.6	0	-2.4	-11.5	-34.2	-58.8
Total Employment	jobs	4,940	+885	+459	+330	+242	+88	0	-132	-637	-1,881	-3,224
Total timber sale receipts ²	\$ millions	20.30	+2.78	+2.04	+1.39	+1.02	+ .37	0	-.56	-2.69	- 7.97	-13.72
Total timber sale receipts ³	\$ millions	57.38	+7.86	+5.76	+3.93	+2.88	+1.05	0	-1.57	- 7.60	-22.53	-38.78
Soils												
Lost productivity	acres/decade	N/A	4,471	4,388	4,267	4,251	4,056	4,021	4,043	3,824	3,311	2,491
Water Resources												
Sediment yield	tons x 100/ decade	N/A	910	891	712	698	676	788	668	625	251	189
Wildlife Habitat												
Old growth habitat, end 1st decade	acres	48,400 ⁴	25,500	26,300	26,800	27,400	27,700	0	28,900	30,900	35,600	48,400
Old growth habitat, end 10th decade	acres	48,400 ⁴	8,900	8,900	12,100	16,400	16,500	0	22,300	22,300	46,200	57,000
Roosevelt Elk habitat end of 1st decade	Percent change from existing	N/A	-40%	-40%	-35	-35%	-30%	-45%	-20%	-25%	+ 5%	+10%
Roosevelt Elk, end of 10th decade	Percent change from existing	N/A	-60%	-60%	-40% -60% ⁷	-60%	-45%	-75%	-40%	-30%	0	+10%

Table 5 Alternatives Comparison (Con't)

	Units of Measure	Existing Situation	Alt. 1 Max/EFD	Alt. 2 Max. Tbr.	Alt. 3 Def. Har.	Alt. 4 S.S.D.	Alt. 5 E-W Cor.	Alt. 6 No Action	Alt. 7 O.P.A.	Alt. 8 No Herb.	Alt. 9 Eco.	Alt. 10 Full Eco.
Wildlife population												
N. Spotted Owl, habitat provided, end of 1st decade ⁵	Pairs	36	0-9	0-9	19	1-9	13	0-5	19	13	29	35
N. Spotted Owl, habitat provided, end of 1st decade ⁵	Pairs	27	0-4	0-4	10	1-4	7	0-2	10	7	26	29
N. Spotted Owl, habitat provided end of 10th decade ⁵	Pairs	36	0	0	19/0 ⁷	1	12	0	19	12	41	54
N. Spotted Owl, habitat provided end of 10th decade ⁶	Pairs	27	0	0	12/0 ⁷	1	8	0	12	8	27	41
Coldwater fish population 1st decade	Percent change from existing	N/A	-10%	-10%	+10%	+10%	+10%	+10%	+10%	+10%	+20%	+20%
Coldwater fish population 10th decade	Percent change from existing	N/A	-30%	-30%	+25% ⁷ -30	+25%	+25%	+10%	+25%	+25%	+50%	+50%
Recreation	Ability to meet needs	--	-	-	+	+	-	-	+	+	+	+
Cultural Resources	Inadvertent degradation (undiscovered sites)	--	-L	-L	-L	-L	-L	-L	-L	-L	-L	-L
Visual Resources	Degradation of scenic quality	--	-H	-H	-M	-M	-M	-H	-M	-M	+L	+L
Areas of Critical Environmental Concern/ Special Areas	Degradation of resource/site values	--	-L	-L	0	0	0	-L	0	0	0	0

¹ Two baselines are analyzed. Existing situation uses annual harvest level of 187.3 MMBF, the average annual harvest from the Eugene District 1978 to 1981. No Action, 219 MMBF per year, is the level which would have prevailed if the decade allowable harvest had been sold and harvested in constant annual increments.

² Based on FY 1983 Sales value of \$92.7 per MBF

³ Based on FY 1981 Sales value of \$262 per MBF

⁴ 1978 Inventory

⁵ 300 acre old-growth management recommendation

⁶ 1,000 acre old-growth management recommendation

⁷ Long-term impacts for Alternative 3 reflect two differing assumptions, pending the decision on status of deferred acres after the first decade: Deferred acres withdrawn from intensive base/deferred acres retained in intensive base.

+ = Beneficial - = Negative L = Low M = Medium H = High

Summary Rationale for Elimination of EIS Alternatives from Further Consideration

Maximum Timber Production with Even Flow Departure (EIS Alt. 1)

- Does not maintain long-term options for management of older forest;
- Makes little provision for protection of important non-timber values.

Maximum Timber Production (EIS Alt. 2)

- Does not maintain long-term options for management of older forest;
- Makes little provision for protection of important non-timber values.

Deferred Harvest (EIS Alt. 3)

- Reduction of allowable cut level in second decade would be unacceptable if deferred harvest areas were then withdrawn.

Seral Stage Distribution (EIS Alt. 4)

- Maintains only long-term options related to timber production of the older forest.

No Action (EIS Alt. 6)

- Does not maintain long-term options for management of older forest;
- Makes little provision for protection of important non-timber values.

Original Proposed Action (EIS Alt. 7)

- Does not adequately respond to socioeconomic needs of timber dependent communities.

No Herbicides (EIS Alt. 8)

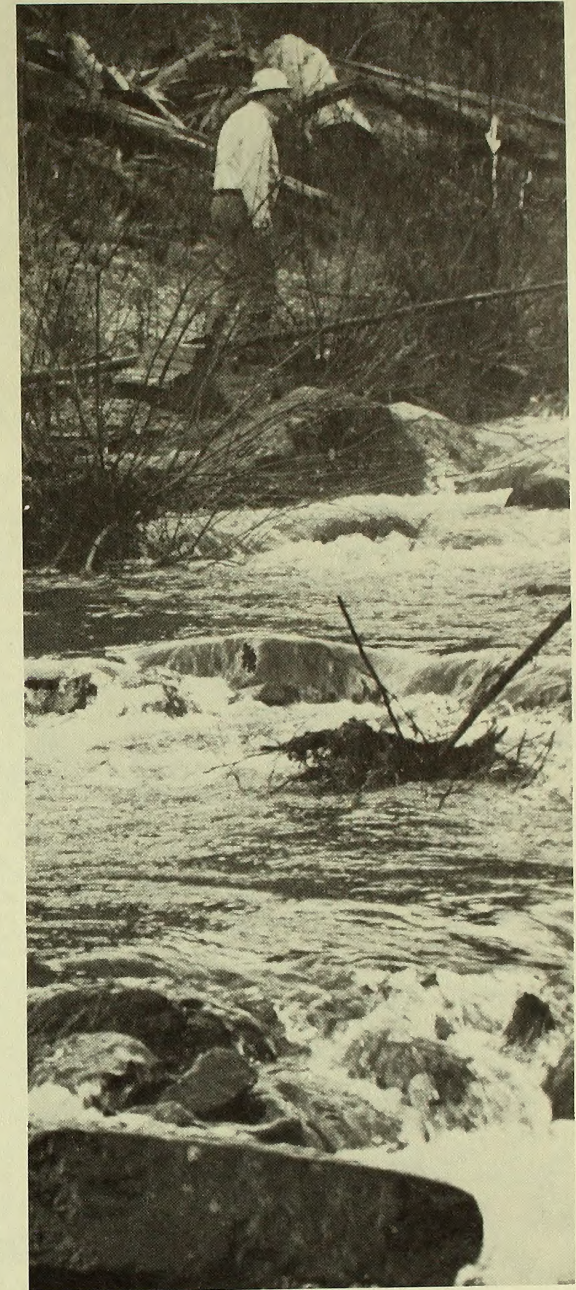
- Does not adequately respond to current socioeconomic needs.
- Eliminates use of a viable intensive management practice.
- Inconsistent with allowable cut policy.

Ecosystem (EIS Alt. 9)

- Does not adequately respond to current socioeconomic needs of timber-dependent communities.
- Includes allocations contrary to O&C Forest Resources Policy (VRM, wildlife, recreation).
- Inconsistent with allowable cut policy.

Maximum Ecosystem (EIS Alt. 10)

- Does not adequately respond to current socioeconomic needs of timber-dependent communities.
- Includes allocations contrary to O&C Forest Resources Policy (VRM, wildlife, recreation).
- Inconsistent with allowable cut policy.



Appendix B

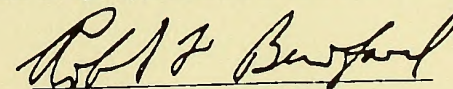
Bureau of Land Management (BLM) O&C Forest Resources Policy

This statement sets forth BLM policy for management of the Revested Oregon and California (O&C) Railroad and reconveyed Coos Bay Wagon Road Grant lands situated in the State of Oregon. It reflects the provisions of the Act of August 28, 1937 (O&C Act), and the effects of other relevant legislation and Executive Orders.

The BLM manages 2.1 million acres of O&C lands in western Oregon. The revenues and employment generated by timber sales, conversion of timber to wood products, and other marketable values derived from these lands significantly affect the State and local economies. It is further recognized that public use of these lands through consumptive and non-consumptive recreation, including sport hunting and sport and commercial harvest of salmon and steelhead produced in streams on the O&C lands, also contributes to the local and State economies. The primary objectives of the management program on the O&C lands are to manage for a high-level and sustained yield output of wood products needed to contribute to the economic stability of the local communities and industries, and to provide for other land uses as established in the O&C Act and other legislation.

The following principles will guide BLM in managing the forest resources on O&C lands:

1. Resource management plans or management framework plans as developed through the land-use planning process shall constitute the primary guides for carrying out legislative mandates and Bureau policies.
2. All O&C land administered by BLM in western Oregon will be classified according to the Timber Production Capability Classification. Lands classified as suitable for timber production shall be managed for timber and wood product production, to the extent possible, under the requirements of law. Lands classified as unsuitable for timber production shall be allocated to the fullest extent possible to meet the needs for non-timber public land uses. Where unsuitable lands cannot adequately provide for other uses set forth in the O&C Act and other applicable legislation and Executive Orders, suitable lands may be managed to meet the needs for the following:
 - a. Maintenance of water quality in accordance with Federal and State standards. Timber harvesting may be restricted or excluded only in areas where mitigating measures will not maintain water quality standards.
 - b. Protection of wetlands, including riparian zones. Timber harvesting may be restricted or excluded only in areas where mitigation measures will not be effective.
 - c. Conservation of specifically identified habitats for federally listed, threatened and endangered species. Timber harvesting may be restricted or excluded only in areas where mitigating measures will not be effective.
 - d. Research and development pertinent to the management of the land resources. Timber harvesting may be restricted or excluded only in areas where mitigating measures will not maintain resource values, and research is assessing these values; timber harvesting may be restricted or excluded pending the research conclusions.
 - e. Consideration of State goals and objectives concerning State-listed, threatened and endangered species in land-use planning and management. Restrictions may be utilized to achieve the habitat objectives developed from the BLM plans.
 - f. Consideration of habitat needs of native species. Restriction of timber harvest may be considered when these habitat needs cannot be met through established timber harvest practices.
 - g. Protection of developed high-value recreation areas, including the visual quality of significant scenic areas. Restriction or exclusion of timber harvest may be considered in the protection of established recreation facilities. Timber harvest may be restricted in the protection of scenic areas only where mitigating measures will not prove effective.
3. The allowable cut determination shall be based on nondeclining harvest level over time. Departures from the nondeclining harvest level may be permitted in either direction. Any increases shall not exceed the long-term sustained yield capacity of the land; decreases shall be economically and/or biologically justified and timed so as to minimize impacts on dependent industries and local economies.



Director, Bureau of Land Management

Appendix C Areas of Critical Environmental Concern

Site Name	Approximate Size (acres)	Description	Primary Resource Values	Remarks
1. Lake Creek Falls	3	Highly scenic waterfalls and swimming area	Scenic, Natural Hazard	
2. Elk Meadows	205	Meadow and shrub communities surrounded by old-growth fir; unique wildlife habitat	Botanic, Wildlife	Potential Research Natural Area (RNA)
3. Horse Rock Ridge	190	Large, grassy bald with diverse flora	Botanic, Wildlife, Scenic, Cultural	
4. Long Tom	8	Willamette Valley oak and ash woodland/grassland ecosystem; unique wildlife habitat	Botanic, Wildlife	
5. Fox Hollow	160	Douglas-fir/Ponderosa pine forest in the Willamette Valley foothills	Botanic	Potential RNA
6. Camas Swale	280	Douglas-fir forest in the Willamette Valley foothills	Botanic	Potential RNA
7. Mohawk	293	Fir, hemlock and cedar forest in the Willamette Valley foothills	Botanic	Potential RNA

Appendix D Environmental Preferability

Table 7 Compliance with NEPA Goals

Goal No. ¹	Alternatives									
	Max/EFD	Max. Tbr.	Def. Har.	S.S.D.	E-W Cor.	No Action	O.P.A.	No Herb.	Eco.	Full Eco.
1	6.33	6.50	7.00	7.33	7.50	6.33	7.33	5.33	6.33	6.00
2	5.33	5.67	7.50	7.50	7.33	6.33	7.00	6.17	7.17	7.17
3	6.17	6.50	7.83	8.17	8.00	7.67	7.33	5.17	4.67	4.17
4	5.83	6.00	7.33	6.67	7.00	6.00	7.17	5.67	6.33	6.50
5	6.50	6.67	7.67	8.00	7.83	6.50	6.67	4.67	4.33	3.83
6	7.33	7.83	8.33	7.67	7.67	7.00	6.50	4.50	4.50	3.83
Average Rating	6.25	6.53	7.61	7.56	7.56	6.64	7.00	5.25	5.56	5.25
Overall Rank	7	6	1	2	2	5	4	9	8	9

¹ National Environmental Policy Act (NEPA) goals are described in the text.

Appendix E: Summary of Public Input

The development and utilization of public input has been a key element of the planning process. It was initiated in the data collection phase (Unit Resource Analysis) through the preparation of a mailing list of interested and informed individuals and organizations. This list was updated and enlarged as additional contacts were made. Parties on the list were kept informed of planning progress through periodic newsletters, and their comments were solicited at various stages.

Additional comments were received at public meetings, open houses, and Advisory Council meetings on the draft and final EISs. At its August 11, 1983 meeting, the Advisory Council recommended adoption of the Preferred Alternative of the final EIS as the decision.

Public comment received throughout the planning/draft EIS process was summarized and discussed in the Eugene final EIS. This analysis considers only comments received on the final EIS. Table 8 summarizes the source of comments received throughout planning and EIS preparation.

A total of 27 written comments were received on the final EIS. Analysis of the responses revealed four recurrent concerns. These concerns are summarized in the following discussion.

Funding Level Assumptions

A major concern was dependence on increased funding to support the new allowable cut level. Some respondents felt that timber management programs might not be fully funded, with the result that timber harvest would have to be reduced instead of increased as declared by the preferred alternative. Others felt that full funding was essential and pledged support of the full management level. Some commenters suggested that a less intensive, less expensive form of timber management could be practiced on a larger portion of the land base to achieve a similar allowable cut level. They felt the harvest level achieved in this way would be less susceptible to variations in funding.

One respondent requested additional analysis that would describe differing allowable harvests resulting from various funding levels between the 1983 budget and the full implementation budget.

Adequacy of Wildlife Habitat Management

Several respondents recommended increased management of wildlife habitat, particularly additional allocations for older forest habitat. While some supported the East-West Corridor

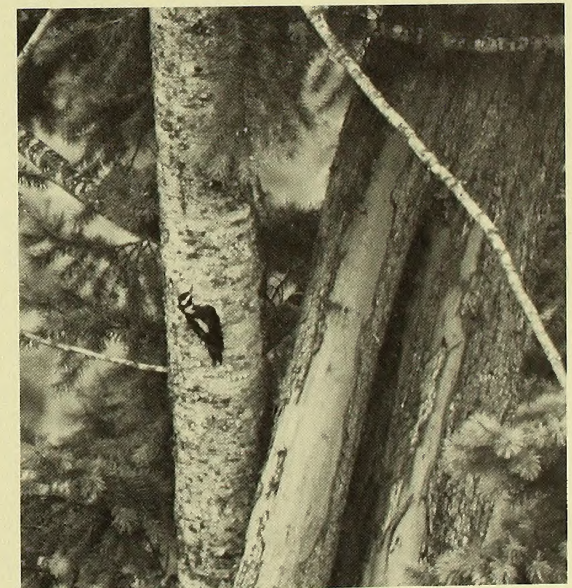
concept, they believed that additional small block allocations—"stepping stones"—were needed to make the Corridor work. They said that additional older forest allocations, distributed across the District's land base, are needed to maintain habitat diversity for all species. Some respondents requested more attention to snags, down logs and other habitat structures, and greater protection of riparian zones, especially along stream orders 1 and 2.

Some respondents felt that proposed management would severely impact the populations of northern spotted owls, and that "failure to implement the Spotted Owl Management Plan (SOMP) could be seen as a violation of the Sikes Act, of State Planning Goal 5, of ORS 496.012 and of the Coastal Zone Management Plan."

These respondents also recommended that all potential bald eagle nests and roost sites be protected.

Table 8 Sources of Responses

	Alternatives Analysis	Draft EIS	Final EIS	Total
Government	18	15	3	36
Industry	20	10	8	38
Citizen's Groups	5	11	5	21
Individuals	43	11	11	65



Validity of Wildlife Management Concepts/Analysis

Some respondents questioned the validity of the wildlife concepts proposed for the decision, particularly the East-West Corridor and the habitat requirements of Roosevelt elk. It was felt that there was no migratory need in western Oregon for a corridor, that transportation routes would prevent use by land based animals and that the corridor concept is too experimental. Some respondents believed that the 30,000 acres withdrawn for fragile sites, reforestation difficulties and riparian areas would provide more than enough wildlife habitat for the Eugene District. Wildlife species were more adaptable, it was said, than as described by BLM wildlife biologists. Proposed management for snags, down logs and riparian zones was criticized by some as being wasteful, and of questionable benefit to wildlife. A few respondents recommended modifications of some wildlife management practices to allow greater flexibility and safety for logging operators. One respondent criticized the negative bias against timber management reflected in the EIS.

Other commenters questioned the requirement of thermal cover for Roosevelt elk. They believe that there are many instances of elk survival in western Oregon and Washington in locations which lack older seral stages for thermal cover. They stated that availability of forage was the most significant habitat feature determining survival.

Selective Harvest/Multi-species Management

Several individuals discussed the species composition of the forest and silvicultural systems used to perpetuate it. These respondents felt that too much emphasis is placed on the Douglas-fir as the main commercial species and that silvicultural techniques used to propagate it are inefficient and destructive to the environment.

Clearcutting, one respondent said, "is an efficient method for the final harvest but sets the stage for increased costs and inefficiencies throughout the rotation." Citing impacts to soils, watershed, wildlife, and plant communities, some respondents recommended that BLM implement a long-term management plan for selective cut management or single tree selection. Also recommended was management for a diversity of tree species to maintain stability of both the forest's biological systems and the region's economic base.

Appendix F: Consistency with Federal, State and Local Planning

The Federal Land Policy and Management Act (FLPMA) provides that BLM shall: 1) coordinate plans with local, State, and other Federal planning efforts; and 2) provide consistency with other agency plans to the extent practical under Federal law, regulations and policy. This section, therefore, addresses the relationship of the decision with such plans.

Coordination with other agencies was carried out throughout the planning process. Data were exchanged, documents were reviewed and meetings were held to clarify goals and guidelines. Generally, State and local plans provide a broad framework for identification and accommodation of a variety of land uses to meet appropriate public needs. The Eugene plan provides a similar framework for BLM-administered land.

Consistency of the decision with specific agency plans and goals is as follows:

Forestry Program for Oregon (FPFO) - Oregon State Board of Forestry

Basic Objective: Maintain the maximum potential commercial forest land base consistent with other resource uses while assuring environmental quality.

Consistency: The decision retains the maximum potential for commercial forest lands. No commercial forest land has been designated for an irreversible change of use, such as commercial or industrial development. BLM considers the mix of uses defined in the

decision to be consistent with the "other resource uses" and "environmental quality" portions of the goal. Congressional Acts, Executive Orders and "Oregon Best Management Practices under the Clean Water Act" provide guidelines for management of certain lands. Throughout the planning process, these guidelines have served to help define the land use mix.

Basic Objective: Identify and implement the levels of intensive forest management required to achieve maximum growth and harvest.

Consistency: Intensive management practices will be implemented on all 265,000 acres contained in the timber production base to the extent that practices are cost effective and environmentally sound. These acres comprise 86 percent of the commercial forest land base.

Basic Objective: Rehabilitate commercial forest land that presently is not stocked with a commercial species.

Consistency: Conversion of hardwood stands and brushfields is planned.

Basic Objective: Maintain community stability by remaining flexible for increases in future harvest levels that would offset projected shortages.

Consistency: The Office of the State Forester identified a non-declining even-flow harvest level of 273 MMBF (16' log scale). The decision provides for an annual harvest of 223 MMBF. An inconsistency exists with regard to the objective to maintain flexibility. BLM policy does not provide for deviation from even-flow under normal circumstances.

Oregon Wildlife Goals

Oregon Revised Statute 496.012 establishes goals for the management of the State's wildlife. Following is a consistency determination for goals that relate to the decision:

Goal - To maintain all species of wildlife at optimum levels and prevent the serious depletion of any indigenous species.

Consistency - The decision provides for diversity of habitat sufficient to maintain at least viable populations of most species. Cavity dwelling wildlife may be an exception. Spotted owl habitat will be maintained to meet Original Task Force guidelines for 13 pairs during the decade.

Goal - To develop and manage the lands and waters of this State in a manner that will enhance the production and public enjoyment of wildlife.

Consistency - The decision provides for protection of aquatic and terrestrial habitat, improvement of aquatic habitat and cooperative wildlife management. All should serve to enhance the production and public enjoyment of wildlife.

Goal - To develop and maintain public access to the lands and waters of the State and the wildlife resources thereon.

Consistency - BLM has built and maintained a network of roads that provide public access to a major portion of its lands. This program is expected to continue under the new plan.

Goal - To regulate wildlife populations and public enjoyment of wildlife in a manner that is compatible with primary uses of the lands and waters of the State and provides optimum public recreational benefits.

Consistency - The decision provides for a level of wildlife habitat protection that is compatible with the primary use of the lands involved for timber production, and provides optimum public recreational benefits considering deference to the primary use of timber production.

Statewide Planning Goals - Oregon Land Conservation and Development Commission (LCDC)

Only those LCDC goals which have a direct relationship with the proposed decision were examined. LCDC goals not generally applicable are: 3. Agricultural lands; 10. Housing; 11. Public facilities and services; 12. Transportation; 14. Urbanization; 15. Willamette River Greenway; 17. Coastal Shorelands; 18. Beaches and dunes.

Goal 1: Ensure citizen involvement in all phases of the planning process.

Consistency: The BLM planning process provides for public input at every stage, from the initial inventory to critique of the final decision.

Goal 2: Establish a land-use process and policy framework as a basis for all decisions and actions.

Consistency: The O&C Act and FLPMA provide a policy framework for all decisions and actions. The decision has been developed in accord with these Acts.

Goal 4: Conserve forest lands for forest uses.

Consistency: The decision provides for retention of forest lands for forest uses. The productive capacity of the land is not exceeded, and all other uses are compatible with forest uses in this goal.

Goal 5: Conserve open space and protect natural and scenic resources.

Consistency: The decision conserves open space, as no developments (housing, urbanization, etc.) are included. Protection is provided for fish, wildlife, scenic resources and watershed values.

Goal 6: Maintain and improve the quality of the air, water and land resources.

Consistency: The decision provides for enhancing land resources and attaining Federal and State water quality standards. Slash burning under the decision will increase the level of air pollutants. However, all burning will be done in accordance with the Oregon State Smoke Management Plan.

Goal 7: Protect life and property from natural disasters and hazards.

Consistency: BLM projects are designed to minimize hazards from fire, flooding, landslides and debris slides.

Goal 8: Satisfy the recreational needs of the citizens of the State, and visitors.

Consistency: The decision provides for retaining existing recreation sites and slight expansion. It also provides special management of highly sensitive visual areas, protects unique natural areas and enhances fish habitat to help meet expected recreational demands.

Goal 9: Diversify and improve the economy of the State.

Consistency: The decision maintains a high level of timber production. It will contribute to recreation and commercial fishing industries by maintaining and improving habitat for anadromous fish. In addition, modest support for tourism will result from maintaining scenic and recreational attractions.

Goal 13: Conserve energy.

Consistency: The conservation and efficient use of energy sources are objectives in BLM activities. The use of logging residue for firewood will be encouraged.

Goal 16: Recognize and protect estuarine resources.

Consistency: The decision recognizes and protects estuarine resources by maintaining water quality and striving to reduce sediment resulting from operations.

Goal 19: Conserve the long-term values, benefits and natural resources of the near shore ocean and continental shelf.

Consistency: The decision affords protection and enhancement for anadromous fisheries.

Oregon Coastal Zone Management Program

The foundation for this program is the 1973 Oregon Land-Use Act, ORS 197, requiring the State to develop statewide planning goals. The goals cited in the foregoing section form the basis for this program, and thus, consistency with these goals represents consistency with the Oregon Coastal Zone Management Program. A more comprehensive consistency determination has been provided to LCDC.

County Comprehensive Plans - Lane, Linn, Benton and Douglas Counties

Goals and objectives in county plans are based primarily on LCDC goals and objectives and, therefore, are very similar. For this reason, the following basic objectives are considered to apply collectively to the four counties.

Basic Objective: Maintain commercial forest lands for producing wood fiber and other forest uses.

Consistency: The coniferous forest land base will be maintained as described in the FPFO consistency section, although acreages will vary from county to county. The degree of other uses is not defined and could vary considerably among counties.

Basic Objective: Obtain optimum productivity from commercial forest lands through forest management techniques.

Consistency: Intensive forest management will be practiced on approximately 86 percent of the commercial forest land base.

Basic Objective: Protect water quality, fish and wildlife habitat, scenic and recreational values.

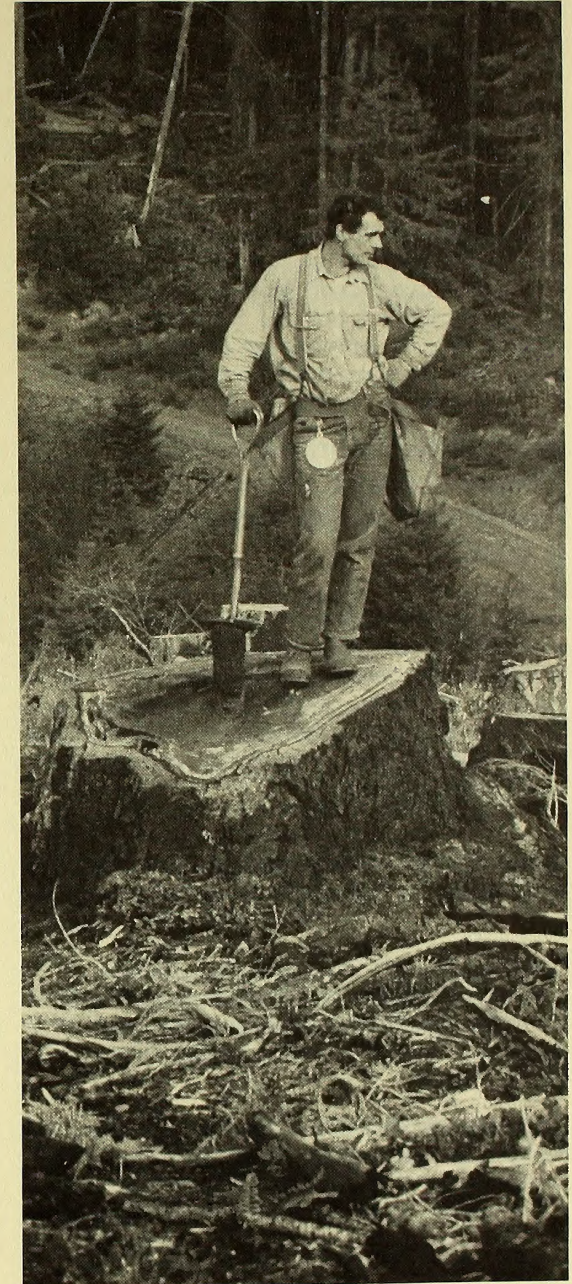
Consistency: The decision provides for protecting identified values.

Basic Objective: Provide for economic diversification.

Consistency: The decision will provide some indirect encouragement for economic diversification. Commercial and recreational fisheries will benefit from protecting and enhancing anadromous fish habitat. The tourist industry may benefit as a result of the protection of visual and recreational resources.

Basic Objective: Expansion of existing industries.

Consistency: While the decision will result in a modest increase in timber offering, industry expansion is expected to be limited due to excess installed capacity. Some increase will be provided in opportunities related to commercial and sport fishing.



Appendix G District Monitoring Plan

Monitoring Element	Method	Frequency ¹	Characteristics Evaluated ¹
Timber Management			
Periodic Forest Inventory	Permanent Plot Measurements	Decadal	Ht. growth; dia. growth; stand age, vol. growth/tree; vol. growth/acre
Growth Response from Fertilization and Thinning	Permanent Plot Measurements	5-10 yr. Intervals	Ht. growth; dia. growth; stand age; vol. growth/tree; vol. growth/acre
Tree Planting	Contract Administration	Daily during planting season Oct.-April	No. trees/acre; distribution of trees; root forms
Cone Collection	Contract Administration	Daily from Aug. 24-Oct. 1	Stand and/or tree selection; location designation; volume obtained; seed count
Chemical Site Preparation and Release	Contract Administration	Daily during project	Chemical mix; spray distribution; stream monitoring; unit signing; collection application data
Mechanical Site Preparation and Release	Contract Administration	Daily during project	Treatment of target vegetation
Manual Site Preparation and Release	Contract Administration	Daily during project	Treatment of target vegetation; placement of protective devices
Site Preparation and Release Spray Evaluation	Vegetative Survey	Annually, and/or 5, 10 & 15 years	Quantity effect of treatment on competition and desired trees; treatment effectiveness
Pre-commercial Thinning	Contract Administration	Daily during project	Spacing; tree selection; work quality
Fertilization	Contract Administration	Daily during project	Distribution of fertilizer; application monitoring
Seedling Protection (Shades, Caps, Tubing, etc.)	Contract Administration	Daily during project	Number & distribution of shades, caps, tubes, etc., and positioning of devices
Animal Damage	Contract Administration	Daily/Weekly during project	Number of trapped animals; effectiveness of repellent or treatment
Reforestation Surveys	Stocking Surveys	Annually and/or 5, 10 & 15 years	No. of trees/acre; tree distribution; vegetation competition, survival by seedling type; height growth
Tree Improvements/Progeny Test Sites	Test Plot Measurements	Annually, and/or 5, 10 & 15 years	Height growth; comparative height growth per parent
Timber Sales	Contract Administration	Weekly on each contract	Timber cutting & payments; logging system requirements; road construction, use & maintenance; environmental compliance and effectiveness of best management practices
Timber Management Accomplishments	Operations Inventory Records; Reforestation Records; Timber Sale Accounting System	Annual Report	Adherence to Allowable Cut Plan, Record of Decision and EIS (FEIS Table 1--2); Units Accomplished
Fire Management			
Slash Burning	Selective sampling of harvest units	Spring and fall	Soil productivity; nutrient capital; site preparation
Soil Management			
Erosion	Selective sampling of harvest units and road construction projects	Annually	Surface erosion; mass wasting; soil productivity

Appendix G District Monitoring Plan (Con't)

Monitoring Element	Method	Frequency ¹	Characteristics Evaluated ¹
Timber Management			
Air Management			
Air Quality	Ocular Observations	Bi-weekly	Degrees of clarity
Watershed Management			
Water Quality	Monitoring of Non-point Source Pollution & Analysis of Water Samples; Contract Administration	Monthly and/or after major storms	Stream flow profiles; temperature profiles; dissolved oxygen levels; pH; suspended sediment and turbidity
Range Management			
Noxious Weeds	Selective area habitat inventory and population survey	Annually	Population following treatment; treatment methods and effectiveness
Wildlife Management			
Stream Habitat	Stream Survey	Periodically-every major stream once during 10-yr. period	Channel structure; riparian structure; bedload composition and configuration; fish and aquatic insect populations
Big Game Habitat and Population	Habitat Inventory & Spotlight Counts	Annually	Response to habitat manipulation
Raptor Habitat and Population (Eagles, osprey, hawks, etc.)	Habitat Inventory & Population Surveys	Annually	Reproductive success; response to timber management practices
Spotted Owl Habitat and Population	Habitat Inventory & Population Surveys	Annually	Reproductive success; response to timber management practices
Wildlife Tree Management (Snags, etc.)	Selective Sampling of Harvest Units	Annually	Quantity & quality of trees left for wildlife
Recreation - Visual & Cultural			
Visual Resource Layout Compliance	Comparison of Harvested Units with Visual Simulations	Annually	Effectiveness of visual mitigation measures; compliance with EA stipulations
Cultural Site Protection	Examination of Selected Sites Before and After Timber Harvest/Road Construction	Annually	Site integrity
Special Area Protection (RNAs, ACECs)	Inspection of designated areas	Annually	Compliance with protective measures; area integrity
T & E Plants			
Rare & Endangered Plant Habitat and Population	Habitat Inventory & Population Surveys in Selected Areas	Annually	Compliance with protective measures; population response to habitat manipulation
Overall Environment			
Environmental Assessment Compliance	Inspection of Selected Projects	Periodically throughout the year	Quality of environment after project, i.e., harvest, road construction, herbicide spray, etc.

¹ Frequency and characteristics evaluated may vary depending upon the severity of the environmental impact, specific contract requirements and administrative priorities.

Form 1279-3
(June 1984)

BORROWER'S

SD 538.2 .07 E95 198

Eugene timber manage
plan

DATE LOANED	BORROWER

USDI - BLM

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE
P.O. BOX 10226—1255 PEARL STREET
EUGENE, OREGON 97401

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. DEPARTMENT OF THE INTERIOR

PERMIT NO. G-76